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Title:
Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  June 23, 2003, 15:03:51; Search time 70 Seconds (without alignments) 350.259 Million cell updates/sec
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1 MRRGPRSLRGRDAPAPTPCV.....ATELGSTELVTTKTAGPEQQ 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A_Geneseq_101002:*

1: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1980.

2: /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1981.
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| SIDS2/gcgdata/geneseq/geneseqp-emb1/AA1985_DAT: |
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Result No.	Score	Query Match	Query Match Length DB	BB	ij	Description	escription
ъ	965	100.0	184	23	ABB81483	Human	n Ztnfrl2 prot
2	965	100.0	266	23	AAE22243	Human	JST576
w	954.5	98.9	185	23	AAE22242	Human	mature
4	947.5	98.2	185	23	AAE22270	Human	
u	946.5	98.1	185	23	AAE22271	Humar	
0	943.5	97.8	185	23	AAE22268	Human	
7	939.5	97.4	185	23	AAE22269	Human	
00	935.5	96.9	185	23	AAE22267	Humar	n BAFF recepto
9	928.5	96.2	185	23	AAE22266	•	
10	410.5	2 У	175	2	12221120	Human	

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GGF-II encoded	AAR55654	15	422		113.5	45
neureg	AAY26553	20	248		w	44
glial	AAR87445	17	248			43
glial	AAR96074	17	248	٠	113.5	42
an glial g	AAW09358	17	248	٠	113.5	41
Ö	AAR55653	15	248		113.5	40
segment E.	AAR46912	15	248.	11.8	113.5	39
	AAB42952	21	863	•	116	38
C glutamicum prote	AAG92860	22	635	•	117	37
	AAR87467	17	422	12.3	118.5	36
Novel human dia	ABG21164	22	251		119	35
homologu	AAU82954	23	1023	12.5	120.5	ω 4
Mouse BAFF-R:Fc	AAE22247	23	65	•	142	u u
BAFF-R:	AAE22251	23	73	•	284	32
F-R:F	AAE22250	23	73	٠	291	31
BAFF-R:F	AAE22249	23	73	32.8	317	30
BAFF-R:F	AAE22248	<u>ა</u>	73		337	29
BAFF-R:F	AAE22252	ა.	70		349	28
BAFF-R:F	AAE22254	23	70	•	353	27
BAFF-R:F	226	ა. ყ	70	•	356	26
BAFF-R:F	225	23	70	36.9	356	25
BAFF-R:F	225	ည	70	•	357	24
BAFF-R:F	AAE22263	23	70	•	360	23
BAFF-R:F	225	23.	70	٠	360	22
-R : F	225	23	70	٠	361	21
BAFF-R:	225	23	70		362	20
BAFF-R:F	226	23	70	•	363	19
-R:F	226	23	70		364	18
Human BAFF-R:Fc	AAE22264	23	70	•	367	17
BAFF-R:F	226	23	70	٠	368	16
Human BAFF-R:FC	AAE22258	23	70	•	368	15
H	224	23	70	•	375	14
Ν	7	23	N	39.8	384	13
gG-kap	222	23.	320		38	12
Murine BAFF rec	AAE22244 ·	23	175	42.5	410.5	ľ
•		-				

## ALIGNMENTS

RESULT 1

ABB81483 ID ABBE 02-SEP-2002 ABB81483; chromosome 22q13.2. Human Ztnfr12 protein SEQ ID NO:2. ABB81483 standard; Protein; 184 AA. (first entry)

Human; Ztnfr12; tumour necrosis factor receptor; cytostatic; immunosuppressive; dermatological; antiinflammatory; antiidabetic; neuroprotective; antirheumatic; antiarthritic; antiasthmatic; nephrotropic; hypotensive; gene therapy; B lymphocyte; tumour; autoimmune disorder; systemic lupus erythematosus; myasthenia gravis; multiple sclerosis; insulin dependent diabetes mellitus; asthma; rheumatoid arthritis; bronchitis; emphysema; renal disease; lymphoma; glomerulonephritis; vasculitis; chronic lymphoid leukaemia; nephritis; pyelonephritis; renal neoplasm; multiple myeloma; amyloidosis; pyelonephritis; renal neoplasm; multiple myeloma; amyloidosis; light chain neuropathy; hypertension; large vessel disease; graft-versus host disease; graft rejection; Crohn's disease; chromosome 22013.2. 07-NOV-2000; 2000US-246449P. 20-DEC-2000; 2000US-257131P. 05-NOV-2001; 2001WO-US47018 16-MAY-2002 WO200238766-A2. domo sapiens.

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AAE22243
ID AAE2
XX
AC AAE2
XX
DT 25-J
XX
DE Huma
XX
KW Huma
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      designated Zthfr12 (I). (I) has cytostatic, immunosuppressive, contrivations antirhammatory, neuroprotective, antidiabetic, antiarthrutic, antiarthrutic, nephrotropic and hypotensive activities, and can be used in gene therapy. (I) can be used for inhibiting, in a mammal, the activity of a ligand that binds Zthfr12 (e.g. ZTNF4), for treating disorders and diseases associated with B CC lymphocytes, activated B lymphocytes or resting B lymphocytes, and for treating contribiting the proliferation of tumour cells. (I) is useful for treating autoimmune disorders such as systemic lupus erythematosus, myasthenia CC gravis, multiple sclerosis, insulin dependent diabetes mellitus, asthma, crhematodid arthritis, bronchitis, emphysema and end stage renal failure or renal disease such as glomerulonephritis, vasculitis, chronic lymphoid CC leukaemia, nephritis, and pyelonephritis, and for treating renal camploidosis, hypertension, large vessel disease, graft rejection and Crohn's disease. (I) is useful for modulating the immune system, for regulating B cell responses and CC development, for modulating development of other cells, antibody communication. Human Zthfr12 is located to chromosome 22q13.2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local S
Matches 184
Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF; Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer;
                                                   Human JST576 (BAFF-R) cDNA spliced version encoded protein.
                                                                                          25-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           28-JUN-2001; 2001US-301715P.
29-AUG-2001; 2001US-315565P.
                                                                                                                                                               AAE22243 standard; Protein; 266
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            isolated human tumor necrosis factor receptor polypeptide, to 12, useful for treating autoimmune disorders, emphysema, end renal failure or renal disease and lymphoma.
                                                                                                                                                                                                                                                                                                                                                                                                 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        al Similarity
184; Conserv

    Page 133; 154pp; English

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                                                                                                                                                                                                                                                                                                                                             KDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              184 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sequence
                                                                                        (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   represents a human tumour necrosis factor receptor

i) (I) has cytostatic, immunosuppressive,
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Pred. No. 4e-74;
; Mismatches
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8 밁

13 83 Query Match Best Local S Matches 184

Similarity

100.0%;

Score 965; DB 2 Pred. No. 6e-74; Mismatches

DB 23; <u>,</u>

Length Indels

266;

<u>,</u>

Gaps

266

A,

184;

Conservative

0

MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ

ESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDGD

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143

202 120 142 60

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The invention relates to human BAFF receptor (BAFF-R) nucleic acids and controls and the proteins. BAFF-R is a B-cell activating factor belonging to the Tumour Records Factor (TNF) family, which is associated with the expression of B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are tumourigenic conditions or inherited genetic disorders involving B-cells, cancer, cut tumourigenic conditions or inherited genetic disorders involving B-cells, thypertension, cardiovascular disorders, immunosuppressive diseases, renal disorders, inflammation, organ transplantation and HIV. Autoimmune disorders, include systemic diseases, which can be treated or prevented by BAFF-R, include systemic conservations of the protein and transplantation and HIV. Autoimmune diseases, which can be treated or prevented by BAFF-R, include systemic lugus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune conservate disease, anti-phospholipid syndrome, Wegener's granulomatosis, collaborateritis modosa and rapidly progressive glomerulomaphritis. Plasma cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, cells disorders e.g., primary or immunocyte-associated amyloidosis, and constitute, protein homologues, and antibodies may further be used in greening assays, in detection assays (chromosomal mapping, tissue typing or forensic biology), predictive medicine (e.g. diagnostic or prognostic care further useful as immunogens to raise anti-BFR antibodies, or in the present sequence is human mature JST576 (BAFF-R) cDNA spliced version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New human BAFF receptor proteins and nucleic acids, useful for
treating, preventing or delaying e.g. autoimmune diseases, car
inherited genetic disorders involving B-cells, cardiovascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-SEP-2000; 2000US-233152P.
21-SEP-2000; 2000US-234140P.
13-FEB-2001; 2001US-268499P.
14-AUG-2001; 2001US-312185P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     myasthenia gravis; hypertension; organ transplantation; drug screening; HIV; human immunodeficiency virus; generater; carder; carders; amyloidosis; renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis; haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis; multiple myeloma; chromosomal mapping; tissue typing; drug screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ambrose CM,
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                                            containing
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                                            5' UTR encoded protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       3; 164pp; English.
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AAE22242
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 CCCCCXXX PPT PTX XXXX PR
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         The invention relates to human BAFF receptor (BAFF-R) nucleic acids and proteins. BAFF-R is a B-cell activating factor belonging to the Tumour Necrosis Factor (TNF) family, which is associated with the expression of B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are useful for treating, preventing or delaying autoimmune diseases, cancer,
                                                                                      Claim
                                                                                                                          treating,
inherited
                                                                                                                                                  New human
                                                                                                                                                                            N-PSDB;
                                                                                                                                                                                                                                                                   18-SEP-2000; 2000US-233152P.
21-SEP-2000; 2000US-234140P.
13-FEB-2001; 2001US-268499P.
14-AUG-2001; 2001US-312185P.
                                                                                                                                                                                                                                                                                                                                   06-SEP-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                         Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  renal; rheumatoid arthritis; systemīc lupus erythematosus; amyloidosis; haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephriti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            myasthenia gravis; hypertension; organ transplantation; drug screening; HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     25-JUL-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE22242 standard;
                                                                                                                                                                                                                  Ambrose CM,
                                                                                                                                                                                                                                                                                                                                                                                     WO200224909-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human;
                                                                                                                                                                                                                                          (BIOJ )
                                                                                                                                                                                          2002-362428/39.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    263
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; Necrosis Factor; autoimmune disease; immunosuppressive; cancer
                                                                                                                                                                                                                                           BIOGEN INC.
                                                                                                                                                                              AAD35409
                                                                                     Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PEQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      myeloma; chromosomal mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PEQQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAG
                                                                                                             BAFF receptor proteins and nucleic acids, useful for preventing or delaying e.g. autoimmune diseases, can genetic disorders involving B-cells, cardiovascular, or renal disorders
                                                                                                                                                                                                                                                                                                                                  2001WO-US28006
                                                                                     2d;
                                                                                                                                                                                                                Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           JST576
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                   73..100
/label= Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            72..100
                                                                                     164pp;
                                                                                                                                                                                                                                                                                                                                                                                                                           105..108
                                                                                                                                                                                                                                                                                                                                                                                                                                                               'note= "Hydrophobic region"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        note=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BAFF-R)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     entry)
                                                                                                                                                                                                                  JS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Four cysteine motif"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Alternative splice acceptor
                                                                                                                                                                                                                                                                                                                                                                                                            "Stop transfer signal"
                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      185 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    rave's disease; glomerulonephritis; tissue typing; drug screening;
                                                                                                                                       cancers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer;
cancer,
B-cells,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               180
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tumourigenic

inherited genetic

18-SEP-2000; 2000US-233152P

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RESULT 4
AAE22270
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches 184;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis, poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, heavy-chain disease, primary or immunocyte-associated amyloidosis, and monoclonal gammopathy of undetermined significance. The nucleic acids, protein, protein homologues, and antibodies may further be used in screening assays, in detection assays (chromosomal mapping, tissue typing or forensic biology), predictive medicine (e.g. diagnostic or prognostic assays, monitoring clinical trials, or pharmacogenomic). The polypeptides are further useful as immunogens to raise anti-BFFR antibodies, or in screening drugs or compounds that modulate BAFF-R activity or expression. The present sequence is human mature JST576 (BAFF-R) protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypertension, cardiovascular disorders, immunosuppressive diseases, rena disorders, inflammation, organ transplantation and HIV. Autoimmune disorders, inflammation, organ transplantation and HIV. Autoimmune diseases, which can be treated or prevented by BAFF-R, include systemic lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune
                                                                                                                                                                                                                                                                         HIV; human immunodeficiency virus; genetic disorder; cardiovascular; renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis; haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephriti
                                                                                                                                                                                                                                                                                                                                                                Human; BAFF receptor; BAFF+R; cytostatic; hypotensive; inflammation; TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease
                              06-SEP-2001;
                                                                                                                                                     Misc-difference
                                                                                                                                                                                                        Homo
                                                                                                                                                                                                                                                         multiple myeloma;
                                                                                                                                                                                                                                                                                                                             myasthenia
                                                                                                                                                                                                                                                                                                                                                 Tumour Necrosis
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                                                                                                                                                                                                                                                                                                                                                                                                BAFF receptor (BAFF-R) mutant,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       standard; Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GPEQQ 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GPEQQ 184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGAASSPAPRTALQP
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                                                                                                                                                                                                                                                                                                    gravis, hypertension; organ transplantation; drug screening; immunodeficiency virus; genetic disorder; cardiovascular.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             185 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                2001WO-US28006.
                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                    Location/Qualifiers 20
                                                                                                                                     /note=
                                                                                                                                                                                                                                                         chromosomal mapping;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98.9%;
                                                                                                                                   "Wild type Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       185
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Pred. No. 3.1e-
0; Mismatches
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No. 3.1e-73;
                                                                                                                                                                                                                                                                                                                                                                                                  V20N.
                                                                                                                                     substituted
                                                                                                                                                                                                                                                            tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           23;
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                                                                                                                                                                                                                                                          typing;
                                                                                                                                       with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
                                                                                                                                                                                                                                                         glomerulonephritis;
drug screening;
                                                                                                                                       Asn"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
                               AAE22271;
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                                                                          AAE22271
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13-FEB-2001; 2001US-268499P.
14-AUG-2001; 2001US-312185P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-362428/39
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  present sequence is human BAFF-R protein mutant.
e: The present sequence is not shown in the specification but is
ived from human BAFF-R referred as SEQ ID NO: 5 (AAE22242) and sh
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                                                                          standard;
                                                                                                                                                                                                                                      GPEQQ 184
                                                                                                                                                                                                                                                                                   DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA
                                                                                                                                                                                                                                                                                                                       DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA 179
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                                                                                                                                                                                          GPEQQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   specification.
                                                                          Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   98.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to human BAFF receptor (BAFF-R) nucleic
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; Pred. No. 1.20
0; Mismatches
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New human BAFF receptor proteins and nucleic acids, useful treating, preventing or delaying e.g. autoimmune diseases, inherited genetic disorders involving B-cells, cardiovascul
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21-SEP-2000; 2000US-234140P
13-FEB-2001; 2001US-268499P
14-AUG-2001; 2001US-312185P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Tumour Necrosis Factor; autoimmune disease; immunosuppressive; ca myasthenia gravis; hypertension; organ transplantation; drug scre HIV; human immunodeficiency virus; genetic disorder; cardiovascul
                                                                                                                                                                                                                                                                                                               The invention relates to human BAFF receptor (BAFF-R) nucleic
                                                                                                                                                                                                                                                                                                                                     Example 17; Page -; 164pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis; haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis; multiple myeloma; chromosomal mapping; tissue typing; drug screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              06-SEP-2001; 2001WO-US28006
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200224909-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BAFF receptor (BAFF-R)
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                                                                                                                                                                                                                                                                                                                                                             or renal disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                          Thompson
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                                                                                                                                                                                                                                                                                                                                                                       autoimmune diseases, car
B-cells, cardiovascular
                                                                                                                                                                                                                                                                                                                                                                                   cancers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            screening;
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useful for treating, preventing or delaying autoimmune diseases, cancer, tumourigenic conditions or inherited genetic disorders involving B-cells, hypertension, cardiovascular disorders, immunosuppressive diseases, renal disorders, inflammation, organ transplantation and HIV. Autoimmune diseases, which can be treated or prevented by BAFF-R, include systemic lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis, poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, heavy-chain disease, primary or immunocyte-associated amyloidosis, and monoclonal cammopathy of undetermined significance. The nucleic acids monoclonal gammopathy of undetermined significance. The nucleic acids, protein, protein homologues, and antibodies may further be used in screening assays, in detection assays (chromosomal mapping, tissue typing or forensic biology) predictive medicine (e.g. diagnostic or prognostic assays, monitoring clinical trials, or pharmacogenomic). The polypeptides are further useful as immunogens to raise anti-EFFR antibodies, or in screening drugs or compounds that modulate BAFF-R activity or expression. The present sequence is human BAFF-R protein mutant.

Note: The present sequence is not shown in the specification but is derived from human BAFF-R referred as SEQ ID NO: 5 (AAE22242) and si proteins. BAFF-R is a B-cell activating factor belonging to the Tumour Necrosis Factor (TNE) family, which is associated with the expression of B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are 2d

Sequence 185 ጅ

Query Match

98.1%; Score 946.5; DB 23; Length 185

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                                                              New human BAFF receptor proteins and nucleic acids, useful for treating, preventing or delaying e.g. autoimmune diseases, can inherited genetic disorders involving B-cells, cardiovascular disorders, or renal disorders
                                                                                                                                                                                                            18-SEP-2000; 2000US-233152P.
21-SEP-2000; 2000US-234140P.
13-FEB-2001; 2001US-268499P.
14-AUG-2001; 2001US-312185P.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mutant; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis; haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis; multiple myeloma; chromosomal mapping; tissue typing; drug screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           myasthenia gravis;
HIV; human immunodo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human BAFF receptor
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                                                                                                                               WPI; 2002-362428/39.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ur Necrosis Factor; autoimmune disease; immunosuppressive; cancer; thenia gravis; hypertension; organ transplantation; drug screening human immunodeficiency virus; genetic disorder; cardiovascular;
                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens.
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                                                                                                                                                                                                                                                                                                                                                          /note= "Wild type Ala substituted with Thr"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Protein; 185
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (BAFF-R)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98.9%; Pred. No. 1.5e-72; :ive 0; Mismatches 1;
                                                                                                                                                          JS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         mutant, V20N/A22T.
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                                                                                        cancers,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TNF;
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The invention relates to human BAFF receptor (BAFF-R) nucleic acids an proteins. BAFF-R is a B-cell activating factor belonging to the Tumour

acids and

Example 17; Page -; 164pp; English.

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RESULT 7
AAE22269
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Best Local Similarity
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                                                                                                                                                                                                                      Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer; myasthenia gravis; hypertension; organ transplantation; drug screening; HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Necrosis Factor (TNF) family, which is associated with the expression B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies
Misc-difference 21
                                                                                                  Homo
                                                                                                                                         mutant; mutein
                                                                                                                                                          HIV; human immunodeficiency virus; genetic disorder; cardiovascular; renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis; haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis; multiple myeloma; chromosomal mapping; tissue typing; drug screening;
                                                                                                                                                                                                                                                                                   Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF;
                                                                                                                                                                                                                                                                                                                              Human BAFF receptor (BAFF-R) mutant, V20N/P21Q.
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                                    Misc-difference
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GPEQQ 185
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                                      20
                                                       Location/Qualifiers
                 note= "Wild type Val
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein;
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Pred. No. 2.7e-72;
Pred. No. 2.7e-72;
                   substituted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    23;
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B-cells,
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                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 182
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     proteins. BAFF-R is a B-cell activating factor belonging to the Tumour Necrosis Factor (TNF) family, which is associated with the expression of B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New human BAFF receptor proteins and nucleic acids, useful for treating, preventing or delaying e.g. autoimmune diseases, cancers, inherited genetic disorders involving B-cells, cardiovascular
                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to human BAFF receptor (BAFF-R) nucleic proteins. BAFF-R is a B-cell activating factor belonging to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-SEP-2000; 2000US-233152P.
21-SEP-2000; 2000US-234140P.
13-FEB-2001; 2001US-268499P.
14-AUG-2001; 2001US-312185P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              useful for treating, preventing or delaying autoimmune diseases, cancer, tumourigenic conditions or inherited genetic disorders involving B-cells,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Example 17;
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180 GPEQQ 184
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                                                                 DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA
                                                                                                                                                QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG
                                                                                                                                                                                                                                           MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAG-ASSPAPRTALQP
                                                                                                                                                                                                             MRRGPRSLRGRDAPAPTPCNQAECFDLLVRHCVACGLLRTPRPKPAGAASSPAPRTALQP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or renal disorders
                                                                                                                                                                                                                                                                                                                                                                                   185 AA;
                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page -; 164pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note= "Wild type Pro substituted with Gln"
                                                                                                                                                                                                                                                                                                                 97.4%;
                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                                                                                                                                                                                 Score 939.5; DB 2
Pred. No. 5.8e-72;
                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                            .ALVLALVLVGLVSWRRRQRRLRGASSAEAPDG
                                                                                                                                                                                                                                                                                                                                       DB 23;
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                                                                                                                                                                                                                                                                                                                                     Length 185;
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13-FEB-2001;
14-AUG-2001;
                                                                                                                                                                                                                                             New human BAFF receptor proteins and nucleic acids, useful for treating, preventing or delaying e.g. autoimmune diseases, can inherited genetic disorders involving B-cells, cardiovascular disorders, or renal disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis; haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis; multiple myeloma; chromosomal mapping; tissue typing; drug screening;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TN Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer; myasthenia gravis; hypertension; organ transplantation; drug screening; HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
                                                                                                                                                                                                                    Example 17; Page -; 164pp; English.
                                                                                                                                                                                                                                                                                                                                                                                18-SEP-2000; 2000US-233152P.
21-SEP-2000; 2000US-234140P.
13-FEB-2001; 2001US-268499P.
14-AUG-2001; 2001US-312185P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Misc-difference 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human BAFF receptor (BAFF-R) mutant, V20N/P21Q/A22T.
                                                                                                                                                                                                                                                                                                          WPI; 2002-362428/39.
                                                                                                                                                                                                                                                                                                                                                                                                                                             06-SEP-2001; 2001WO-US28006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200224909-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAE22267 standard; Protein; 185
                                                                                                                                                                                                                                                                                                                                                         (BIOJ ) BIOGEN INC
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                                                                                                                                                                                                                                                                                                                                 Thompson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /note= "Wild
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          note= "Wild type Pro substituted with Gln"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  type Ala substituted with Thr"
                                                                                                                                                                                                                                                                      cancers,
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useful for treating, preventing or delaying autoimmune diseases, cancer, tumourigenic conditions or inherited genetic disorders involving B-cells, hypertension, cardiovascular disorders, immunosuppressive diseases, renal disorders, inflammation, organ transplantation and HIV. Autoimmune diseases, which can be treated or prevented by BAFF-R, include systemic lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune haemolytic anaemia, idiopathic thrombocytopaemia purpura. Chagas' disease grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis, poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, heavy-chain disease, primary or immunocyte-associated amyloidosis, and monocional gammopathy of undetermined significance. The nucleic acids, The invention relates to human BAFF receptor (BAFF-R) nucleic acids and proteins. BAFF-R is a B-cell activating factor belonging to the Tumour Necrosis Factor (TNF) family, which is associated with the expression of B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are homologues, and antibodies

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Best Local S
Matches 181
18-SEP-2000; 2000US-233152P
21-SEP-2000; 2000US-234140P
13-FEB-2001; 2001US-268499P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         screening assays, in detection assays (chromosomal mapping, tissue typing or forensic biology), predictive medicine (e.g. diagnostic or prognostic assays, monitoring clinical trials, or pharmacogenomic). The polypeptides are further useful as immunogens to raise anti-BFFR antibodies, or in screening drugs or compounds that modulate BAFF-R activity or expression. The present sequence is human BAFF-R protein mutant. Note: The present sequence is not shown in the specification but is derived from human BAFF-R referred as SEQ ID NO: 5 (AAEZ2242) and shown in fig 2d of the specification.
                                                            06-SEP-2001; 2001WO-US28006
                                                                                                                                                                             Misc-difference
                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                    Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNI Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer; myasthenia gravis; hypertension; organ transplantation; drug screening; HIV; human immunodeficiency virus; genetic disorder; cardiovascular;
                                                                                                                                                                                                                                            Misc-difference
                                                                                                                                                                                                                                                                         Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human BAFF receptor (BAFF-R) mutant, V20N/P21Q/A22T/L27P
                                                                                                                                                                                                                                                                                                                                                          mutant; mutein
                                                                                                                                                                                                                                                                                                                                                                       multiple myeloma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human; BAFF receptor; BAFF-R;
Tumour Necrosis Factor; autoir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        25-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAE22266 standard; Protein; 185
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                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                        haemolytic anaemia;
                                                                                                                                                                                                                                                                                                                        sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                     rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
tic anaemia; Chagas' disease; Grave's disease; glomerulonephriti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   μ.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DKDAPEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG
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                                                                                                                                                                        /note=
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22
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                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                             'note=
                                                                                                                                                                                                                                                            note= "Wild"
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Pred. No. 1.3e
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                                                                                                                                                                                                                                                                                                                                                                     mapping; tissue typing; drug screening;
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                                                                                                                                                                                                                                                                                                                                                                                      glomerulonephritis;
                                                                                                                                                                                            Thr"
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CC proteins. BAFF-R is a B-ceil activating factor belonging to the Tumour CC Proteins. BAFF-R is a B-ceils actor (TNF) family, which is associated with the expression of CC B-cells and immunoglobuling. The BAFF-R proteins, DNA and antibodies are useful for treating, preventing or delaying autoimmune diseases, cancer, tumourigenic conditions of inherited genetic disorders involving B-cells, hypertension, cardiovascular disorders, immunosuppressive diseases, renal CC disorders, inflammation, organ transplantation and HIV. Autoimmune CC diseases, which can be treated or prevented by BAFF-R, include systemic clums erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune hammosuppressive disease, anti-phospholipid syndrome, Wegener's granulomatosis, cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, cells disorders, in detection assays (chromosomal mapping, tissue typing corocenin, protein homologues, and antibodies may further be used in corocassic biology), predictive medicine (e.g. diagnostic or prognostic assays, monitoring clinical trials, or pharmacogenomic). The polypeptides care further useful as immunogens to raise anti-BFFR antibodies, or in cresent sequence is human BAFF-R protein mutant.

CC derived from human BAFF-R referred as SEQ ID NO: 5 (AAE22242) and shown cc in fig 2d of the spacification as SEQ ID NO: 5 (AAE22242) and shown
    Matches
                     Query Match
Best Local Similarity
                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New human BAFF receptor proteins and nucleic acids, useful for
treating, preventing or delaying e.g. autoimmune diseases, car
inherited genetic disorders involving B-cells, cardiovascular
disorders, or renal disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to
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180;
                                                                                                                           2d
                                                                                                                         of the specification.
                                                                                  185
  Conservative
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                 96.2%;
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0;
                     Score 928.5;
Pred. No. 5e
  Mismatches
                     5e-71;
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                                                                                                                                                                                                                                                            MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAG-ASSPAPRTALQP
                                                                                                      GPEQQ
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                                                                                                                                                                                                              QESVGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDG
                                             standard;
                                                                                                                             GPEQQ
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                                                                                                                                                                                                                                             MRRGPRSLRGRDAPAPTPCNQTECFDPLVRHCVACGLLRTPRPKPAGAASSPAPRTALQP
(first entry)
                                                                                                       185
                                                                                                                             184
                                              Protein;
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Mouse

Ztnfr12

protein SEQ ID

NO: 13

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CC The present inventor. CC CC designated Ztnfr12 (I). (I) has cytostatic, immunosuppressive, CC dermatological, antiinflammatory, neuroprotective, antidiabetic, CC antirheumatic, antiarthritic, antiasthmatic, nephrotropic and hypotensive CC antivities, and can be used in gene therapy. (I) can be used for CC inhibiting, in a mammal, the activity of a ligand that binds Ztnfr12 (e.g. ZTNP4), for treating disorders and diseases associated with B CT inhibiting the proliferation of tumour cells. (I) is useful for treating autoimmune disorders such as systemic lupus erythematosus, myasthenia gravis, multiple sclerosis, insulin dependent diabetes mellitus, asthma, rheumatoid arthritis, bronchitis, emphysema and end stage renal failure or renal disease such as glomerulonephritis, vasculitis, chronic lymphoid CC neoplasms, multiple myelomas, lymphomas, light chain neuropathy, or amyloidosis, hypertension, large vessel diseases, graft-versus host CC modulating the immune system, for regulating B cell responses and cytokine production, and for regulating T and B cell communication. The present sequence represents mouse Ztnfr12 which is given in the exemplification of the present invention.
                                                                                                                                Query Match
Best Local S
Matches 101
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20-DEC-2000; 2000US-357131P.
28-JUN-2001; 2001US-30715P.
29-AUG-2001; 2001US-315565P.
                                                                                                                                                                                                                                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  isolated human tumor necrosis factor receptor polypeptide, termed 12, useful for treating autoimmune disorders, emphysema, end renal failure or renal disease and lymphoma -
                                                                                                                                101;
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   ø
                                                                                                                                                               Similarity
                                             RSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQESVGA
RSQRSRDSSVPTQCNQTECFDPLVRNCVSCELFHT--PDTGHTSSLEPGTALQPQE----
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Ψ,
                                                                                                                                                                                                                                                                   175 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               invention describes a human tumour necrosis factor receptor trifriz (I). (I) has cytostatic, immunosuppressive,
                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   tumour necrosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Henne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             nour necrosis factor receptor; cytostatic;
dermatological; antiinflammatory; antidiabetic;
                                                                                                                                                           42.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       154pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u></u>폿
                                                                                                                         Score 410.5;
Pred. No. 3.4e
9; Mismatches
                                                                                                                                9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Grant FJ
                                                                                                                         1.4e-27;
nes 55;
                                                                                                                                                                                              DB 23;
                                                                                                                                                                                           Length
                                                                                                                                15;
                                                                                                                            Gaps
62
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밁 8

useful for treating, preventing or delaying autoimmune diseases, cancer, tumourigenic conditions or inherited genetic disorders involving B-cells, hypertension, cardiovascular disorders, immunosuppressive diseases, renal disorders, inflammation, organ transplantation and HIV. Autoimmune diseases, which can be treated or prevented by BAFF-R, include systemic lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas disease

The invention relates to human BAFF receptor (BAFF-R) nucleic acids and proteins. BAFF-R is a B-cell activating factor belonging to the Tumour Necrosis Factor (TNF) family, which is associated with the expression of B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are

Example

4; Fig

4b; 164pp; English.

Grave's disease, anti-phospholipid syndrome, Wegener's granulomatosis, poly-arteritis nodosa and rapidly progressive glomerulonephritis. Plasma cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia,

heavy-chain disease,

primary

and

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             밁
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21-SEP-2000; 2000US-234140P
13-FEB-2001; 2001US-268499P
14-AUG-2001; 2001US-312185P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              renal; rheumatoid arthritis; systemīc lupus erythematosus; amyloidosis; haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis; multiple myeloma; chromosomal mapping; tissue typing; drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         myasthenia gravis; hypertension; organ transplantation; drug screening;
HIV; human immunodeficiency virus; genetic disorder; cardiovascular; TN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Murine; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Murine BAFF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treating,
inherited
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-SEP-2001; 2001WO-US28006
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    25-JUL-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAE22244 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200224909-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (BIOJ)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2002-362428/39.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BIOGEN INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGEAALPLPGLLFGAPALLGLALVLALV-LVGLVSWRRRQRRLRGASSAEAPDGDKDA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAGPEQ 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                QESLENVFVPSSETPHASAPTWPPLKEDADSALPRHSVPVPATELGSTELVTTKTAGPEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                --GSALRPDVALLVGAPALLGLILALTLVGLVSLVSWRWRQ-QLRTAS----PDTSEGVQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BAFF receptor proteins and nucleic acids, useful fo preventing or delaying e.g. autoimmune diseases, cargenetic disorders involving B-cells, cardiovascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             or renal disorders -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          receptor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Location/Qualifiers 70..97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /label= Transmembrane_domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    175
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cancers,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TNF;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                115
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          123
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 101
18-SEP-2000; 2000US-233152P
21-SEP-2000; 2000US-234140P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer; myasthenia gravis; hypertension; organ transplantation; drug screening; HIV; human immunodeficiency virus; genetic disorder; cardiovascular; renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE22245
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAE22245 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   monoclonal gammopathy of undetermined significance. The nucleic acids, protein, protein homologues, and antibodies may further be used in screening assays, in detection assays (chromosomal mapping, tissue typing or forensic biology), predictive medicine (e.g. diagnostic or prognostic assays, monitoring clinical trials, or pharmacogenomic). The polypeptides are further useful as immunogens to raise anti-EFFR antibodies, or in screening drugs or compounds that modulate BAFF-R activity or expression.
                                                                               06-SEP-2001; 2001WO-US28006
                                                                                                                                                                                                                                                                                                                              Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   haemolytic anaemia; Chagas' disease; Grave's disease; multiple myeloma; chromosomal mapping; tissue typing; murine; immunoglobulin G; IgG; fusion protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Murine
                                                                                                                                                                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                25-JUL-2002
                                                                                                                                                                                           WO200224909-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence is murine BAFF-R protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  116
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IgG-kappa signal sequence-human BAFF-R:Fc fusion protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BAFF receptor; BAFF-R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            QESLENVFVPSSETPHASAPTWPPLKEDADSALPRHSVPVPATELGSTELVTTKTAGPEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PEPLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAGPEQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       RSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQESVGA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GAGEAALPLPGLLFGAPALLGLALVLALV-LVGLVSWRRRQRRLRGASSAEAPDGDKDA-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RSQRSRDSSVPTQCNQTECFDPLVRNCVSCELFHT--PDTGHTSSLEPGTALQPQE----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        --GSALRPDVALLVGAPALLGLILALTLVGLVSLVSWRWRQ-QLRTAS----PDTSEGVQ 115
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         175
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
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22..320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /label= Signal_peptide
/note= "Murine IgG-kappa signal sequence"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                    /note=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             entry)
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                                                                                                                                                                                                                                                                                              "Encoded by
                                                                                                                                                                                                                                                                                                                                                          "Human
                                                                                                                                                                                                                                                                                                                                                                                                        "Encoded by
                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Mature human BAFF-R:Fc
                                                                                                                                                                                                                                           "Human IgG1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         320
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Pred. No. 3.4
                                                                                                                                                                                                                                                                                                                                                       BAFF-R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cytostatic; hypotensive;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                              Fc region"
                                                                                                                                                                                                                                                                                              region
                                                                                                                                                                                                                                                                                                                                                                                                          region
                                                                                                                                                                                                                                                                                                                                                       extracellular domain"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .4e-27;
                                                                                                                                                                                                                                                                                              introducing
                                                                                                                                                                                                                                                                                                                                                                                                     introducing restriction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 23; Length 175;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  glomerulonephritis;
drug screening;
                                                                                                                                                                                                                                                                                                 restriction site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          15;
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                                                                                                                                                                                                                                                                                                                                                                                                          site"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TNF;
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ABB81493
ID ABB81
XX
AC ABB81
XX
AC ABB81
XX
C ABB81
XX
AC ABB81
X

Ztnfr12-tcs-Fc5 02-SEP-2002 ABB81493;

fusion protein

SEQ ID NO:42

(first entry)

ABB81493 standard;

Protein;

328

neuroprotective; antirheumatic; antiarthritic; antiasthmatic; nephrotropic; hypotensive; gene therapy; B lymphocyte; tumour autoimmune disorder; systemic lupus erythematosus; myasthenia

gravis;

Human; Ztnfr12; tumour necrosis factor receptor; cytostatic; immunosuppressive; dermatological; antiinflammatory; antidiabetic;

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61 82

ESVGAGAGEAAL-----PLPGLLFGAPALLG ESVGAGAGEAAVDKTHTCPPCP----APELLG

109 86 22

VRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ

81

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Matches Query Match Best Local :

Local Similarity

40.2%;

Score 388; Pred. No. 5.

DB 23; 5.2e-25; hes 2;

Length Indels

Conservative

2;

Mismatches

12;

Gaps

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Sequence

320 AA;

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useful for treating, preventing or delaying autoimmune diseases, cancer, tumourigenic conditions or inherited genetic disorders involving B-cells, hypertension, cardiovascular disorders, immunosuppressive diseases, renal disorders, inflammation, organ transplantation and HIV. Autoimmune diseases, which can be treated or prevented by BAFF-R, include systemic lupus erythematosus, rheumatoid arthritis, mysathenia gravis, autoimmune framework of the systemic clupus erythematosus, rheumatoid arthritis, mysathenia gravis, autoimmune frave's disease, anti-phospholipid syndrome, Wegener's granulomatosis, colly-arteritis modosa and rapidly progressive glomerulomephritis. Plasma cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, theavy-chain disease, primary or immunocyte-associated amyloidosis, and conocional gammopathy of undetermined significance. The nucleic acids, protein, protein homologues, and antibodies may further be used in greening assays, in detection assays (chromosomal mapping, tissue typing or forensic biology), predictive medicine (e.g. diagnostic or prognostic assays, monitoring clinical trials, or pharmacogenomic). The polypeptides are further useful as immunogens to raise anti-BFFR antibodies, or in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 treating, inherited
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       13-FEB-2001; 2001US-268499P.
14-AUG-2001; 2001US-312185P.
                                                              The present sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention relates to human BAFF receptor (BAFF-R) nucleic acids and proteins. BAFF-R is a B-cell activating factor belonging to the Tumour Necrosis Factor (TMF) family, which is associated with the expression of B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 9; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              N-PSDB; AAD35412.
                                                                                                             screening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ambrose CM, Thompson
                                          region
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2002-362428/39.
                                                           drugs or compounds that modulate BAFF-R activity or expression. nt sequence is a fusion protein containing murine IgG-kappa quence linked to human BAFF-R and human immunoglobulin G (IgG)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BAFF receptor proteins and nucleic acids, preventing or delaying e.g. autoimmune digenetic disorders involving B-cells, card
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or renal disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9; 164pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               įS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B-cells, cardiovascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ds, useful
diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       for cancers,
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The present invention describes a human tumour necrosis factor receptor CC designated Ztnfr12 (I). (I) has cytostatic, immunosuppressive, antidiabetic, antiarthritic, antiasthmatic, nephrotropic and hypotensive CC activities, and can be used in gene therapy. (I) can be used for CC inhibiting, in a mammal, the activity of a ligand that binds Ztnfr12 (e.g. ZTNF4), for treating disorders and diseases associated with B CC lymphocytes, activated B lymphocytes or resting B lymphocytes, and for communication, multiple sclerosis, insulin dependent diabetes mellitus, asthma, CC remaind disease such as systemic lupus erythematosus, myasthemia CC remaind disease such as systemic lupus erythematosus, myasthemia CC remaind disease such as glomerulonephritis, vasculitis, chronic lymphocyte or renal disease such as glomerulonephritis, vasculitis, chronic lymphoid neoplasms, multiple myelomas, lymphomas, light chain neuropathy, or amyloidosis, hypertension, large vessel diseases, graft versus host disease, graft rejection and Crohn's disease. (I) is useful for communication, thuman Ztnfr12 is located to chromosome 22q13.2. The communication, human Ztnfr12 is located to chromosome 22q13.2. The
                                                                                                                                                                                                                                                  Query Match
Best Local S
Matches 72
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     07-NOV-2000; 2000US-246449P.
20-DEC-2000; 2000US-257131P.
28-JUN-2001; 2001US-301715P.
29-AUG-2001; 2001US-315565P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     multiple sclerosis; insulin dependent diabetes mellitus; asthma; rheumatoid arthritis; bronchitis; emphysema; renal disease; lymphoma; glomerulonephritis; vasculitis; chronic lymphoid leukaemia; nephritis; pyelonephritis; renal neoplasm; multiple myeloma; amyloidosis; light chain neuropathy; hypertension; large vessel disease; graft-versus host disease; graft rejection; Crohn's disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 4; Page 152; 154pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; ABN89456.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (ZYMO ) ZYMOGENETICS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-NOV-2001; 2001WO-US47018
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              isolated human tumor necrosis factor receptor polypeptide, to 12, useful for treating autoimmune disorders, emphysema, end renal failure or renal disease and lymphoma.
9
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                                                                                                                                                                                      μ
                                                                                                                                                                                                                                                                                                                                                                                                                                             sequence
                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                        MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQ
                                                     ESVGAGAGEAAL
                                                                                                                                                                                                                                                                                                                                                                             328
                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                      represents a Ztnfr12-tcs-Fc5 fusion protein, which is le from the present invention.
                                                                                                                                                                                                                                                                                39.8%;
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                                                                                                                                                                                                                                                                                Score 384; DB 23;
Pred. No. 1.2e-24;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Grant FJ;
                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                   1.2e-24;
                                                                                                                                                                                                                                                                                                              Length 328;
                                                                                                                                                                                                                                                  Indels
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Query Match

38.9%;

Score

375;

명 23;

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CC proteins. BaFF-R is a B-cell activating factor belonging to the Tunour CC proteins. BaFF-R is a B-cell activating factor belonging to the Tunour CC Necrosis Factor (TNF) family, which is associated with the expression of CB -cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are useful for treating, preventing or delaying autoimmune diseases, cancer, tunourisenic conditions or inherited genetic disorders involving B-cells typertension, cardiovascular disorders, intmunosuppressive diseases, renal CC disorders, inflammation, organ transplantation and HIV. Autoimmune BC diseases, which can be treated or prevented by BAFF-R, include systemic Lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune CC lupus erythematosus, rheumatoid arthritis, myasthenia gravis, autoimmune CC disease, anti-phospholipid syndrome, Wegener's granulomatosis, CC poly-arteritis nodosa and rapidly progressive Plomerulomephritis. Plasma CC cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, CC poly-arteritis nodosa and rapidly progressive Plomerulomephritis. Plasma CC cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, CC protein, protein homologues, and antibodies may further be used in CC grotein, protein homologues, and antibodies may further be used in Screening assays, in detection assays (chromosomal mapping, tissue typing CC assays, monitoring clinical trials, or pharmacogenomic). The polypeptides or in screening drugs or compounds that modulate BAFF-R activity or expression.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF; Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer; myasthenia gravis; hypertension; organ transplantation, drug screening; HIV; human immunodeficiency virus; genetic disorder; cardiovascular; renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis; haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis; multiple myeloma; chromosomal mapping; tissue typing; drug screening; IgG; immunoglobulin G; fusion protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treating, inherited
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-SEP-2000; 2000US-233152P.
21-SEP-2000; 2000US-234140P.
13-FEB-2001; 2001US-268499P.
14-AUG-2001; 2001US-312185P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 44; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-362428/39
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human BAFF-R:Fc fusion protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAE22246 standard; Protein; 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New human
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 BAFF receptor proteins and nucleic acids, useful for preventing or delaying e.g. autoimmune diseases, car genetic disorders involving B-cells, cardiovascular, or renal disorders
                                                             protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               relates to human BAFF receptor (BAFF-R) nucleic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20; 164pp; English
                                                             sequence
                                                          that modulate BAFF-R activity or is human BAFF-R:immunoglobulin G
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                                                               expression 
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RESULT 15
AAE22258
ID AAE22
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AC AAE22
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          The invention relates to human BAFF receptor (BAFF-R) nucleic acids and proteins. BAFF-R is a B-cell activating factor belonging to the Tumour Necrosis Factor (TNF) family, which is associated with the expression of B-cells and immunoglobulins. The BAFF-R proteins, DNA and antibodies are useful for treating, preventing or delaying autoimmune diseases, cancer, tumourigenic conditions or inherited genetic disorders involving B-cells, typertension, cardiovascular disorders, immunosuppressive diseases, renal disorders, inflammation, organ transplantation and HIV. Autoimmune diseases, which can be treated or prevented by BAFF-R, include systemic lupus erythematosus, rheumatoid arthritis, mysshenia gravis, autoimmune haemolytic anaemia, idiopathic thrombocytopaenia purpura, Chagas' disease fare's disease, anti-phospholipid syndrome, Wegener's granulomatosis, colly-atteritis nodosa and rapidly progressive glomerulonephritis. Plasma cells disorders e.g., multiple myeloma, Waldenstrom's, macroglobulinaemia, heavy-chain disease, primary or immunocyte-associated amyloidosis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Best Local Similarity Matches 70; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; BAFF receptor; BAFF-R; cytostatic; hypotensive; inflammation; TNF; Tumour Necrosis Factor; autoimmune disease; immunosuppressive; cancer; myasthenia gravis; hypertension; organ transplantation; drug screening; HIV; human immunodeficiency virus; genetic disorder; cardiovascular; renal; rheumatoid arthritis; systemic lupus erythematosus; amyloidosis; haemolytic anaemia; Chagas' disease; Grave's disease; glomerulonephritis; multiple myeloma; chromosomal mapping; tissue typing; drug screening; IgG; immunoglobulin G; fusion protein.
                                                                                                                                                                                                                                                                                                                                                                             New human BAFF receptor proteins and nucleic acids, useful for treating, preventing or delaying e.g. autoimmune diseases, can inherited genetic disorders involving B-cells, cardiovascular disorders, or renal disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-SEP-2000; 2000US-233152P.
21-SEP-2000; 2000US-234140P.
13-FEB-20001; 2001US-268499P.
14-AUG-2001; 2001US-312185P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human BAFF-R:Fc clone fusion protein, JST671.
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                                                                                                                                                                                                                                                                                                                                      Claim 44; Fig 20; 164pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ambrose CM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (BIOJ ) BIOGEN INC.
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gammopathy of
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undetermined
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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Ś 밁 នន្តន្តន្តន្តន្តន្ 밁 Ş Matches Query Match Best Local screening assays, in detection assays (chromosomal mapping, tissue typing or forensic biology), predictive medicine (e.g. diagnostic or prognostic assays, monitoring clinical trials, or pharmacogenomic). The polypeptides are further useful as immunogens to raise anti-EFFR antibodies, or in screening drugs or compounds that modulate BAFF-R activity or expression. The present protein sequence is human BAFF-R:immunoglobulin G Fc region Sequence protein, protein homologues, and antibodies may further be used in 61 62 fusion protein. 69; ш N Similarity RRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQE SVGAGAGEAA 71 RRGPRSLRGRDAPAPTPCVPAECFDFLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQE SVGAGAGEAA 70 Conservative ₽. 38.1%; 0; Mismatches Score 368; DB 23; Pred. No. 4.9e-24; 23; Length Indels <u>.</u> Gaps 60 61

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